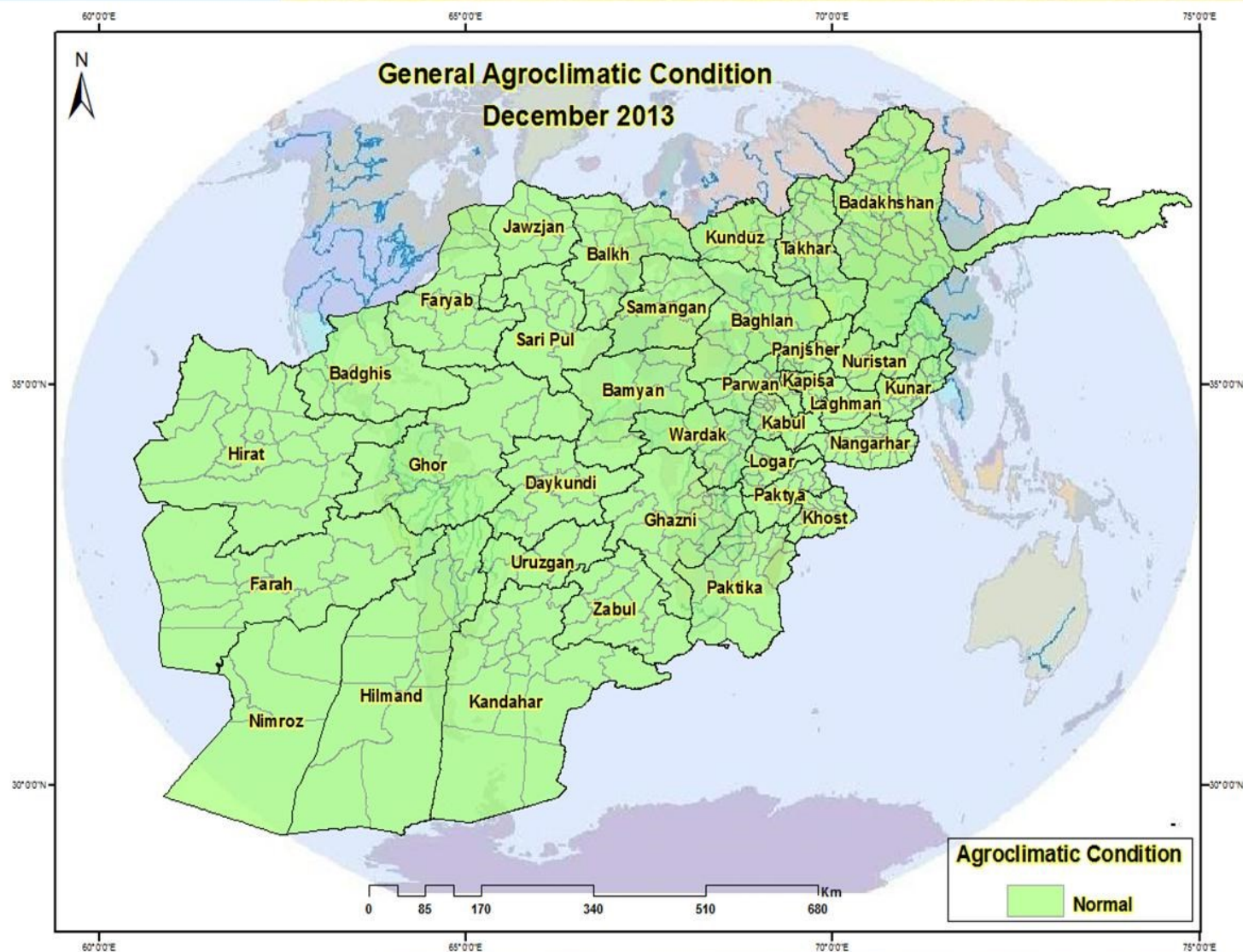




Issue No: 106  
December: 2013

# The Afghanistan Agrometeorological Monthly Bulletin

Topics Crop Information Precipitation Temperature NDVI



Snow

1



Crop Condition

2



Crop Stage

3

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### Data Source:

Ministry of Agriculture , Irrigation and Livestock (MAIL), Agromet  
Project and United States Geological Survey (USGS).

## Summary

Comparison of Monthly rainfall data for the month of December 2013, in contrast to the same month of December 2012, show significant decrease of rainfall in most of the areas aside from some areas of Northern region during the month of December 2013, compare to the same month of last year.

Comparison of snow extent for the month of December 2013, with the same month of long term average shows small decrease in snow extent during the month of December 2013, over the same month of long term average.

## Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
Central	Kabul	Shakardara	Karizmir	Emergence	Normal	Not Existed
		Paghman	Paghman	Emergence	Normal	Not Existed
		Kabul	Darulaman	Dormancy		
		Surubi	Surubi	Emergence	Normal	Not Existed
	Panjsher	Dara	Dara	Dormancy		
		Dashtak	Dashtak			
	Parwan	Syagerd	Gorband	Emergence	Normal	Not Existed
		Charikar	Charikar	Emergence	Normal	Not Existed
	Kapisa	Mahmoodraqi	Mahmoodraqi	Dormancy		
		Kohistan	Kohistan	Planting	Normal	Not Existed
	Wardak	Maidan shehr	Maidan shehr	Dormancy		
		Sayed Abad	Sayed Abad	Emergence	Normal	Not Existed
	Logar	Pole Alam	Pole Alam	Dormancy		
	Bamyan	Bamyan	Bamyan	Emergence	Normal	Not Existed
		Yakawlang	Yakawlang	Vegetative	Normal	Not Existed
		Panjab	Panjab	Dormancy		
		Shebar	Shebar	Emergence	Normal	Not Existed
		Kohmard	Kohmard	Dormancy		
	Ghazni	Andar	Bande Sardi			
		Muqar	Muqar			
	Dikondy	Dasht	Nili			
		Khideer	Khideer			
East	Nangarhar	Agam	Agam	Vegetative	Normal	Not Existed
		Batikot	Ghaziabad	Vegetative	Normal	Not Existed
		Jalalabad	Farm jaded	Vegetative	Normal	Not Existed

Data Source: Agromet Network



## Crop Stage, Crop Condition and Adverse Factor

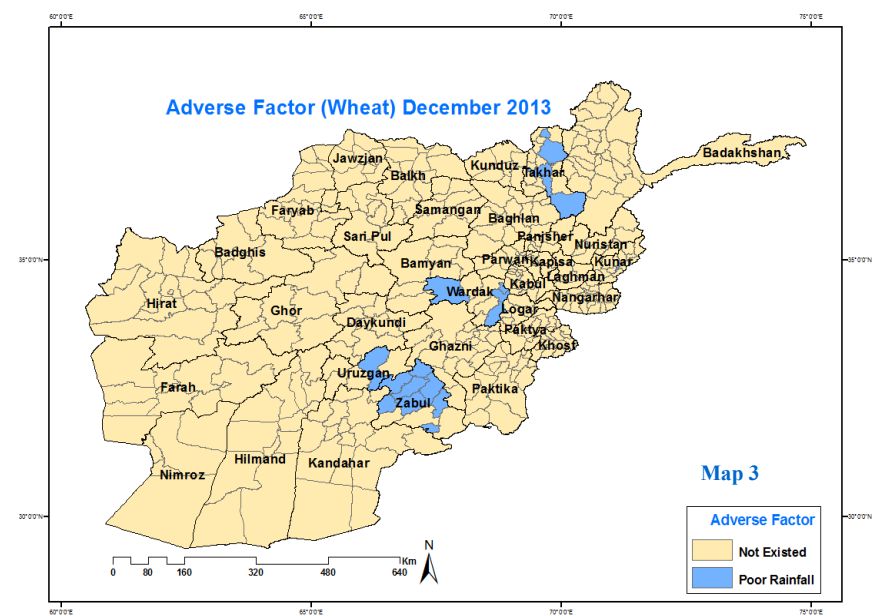
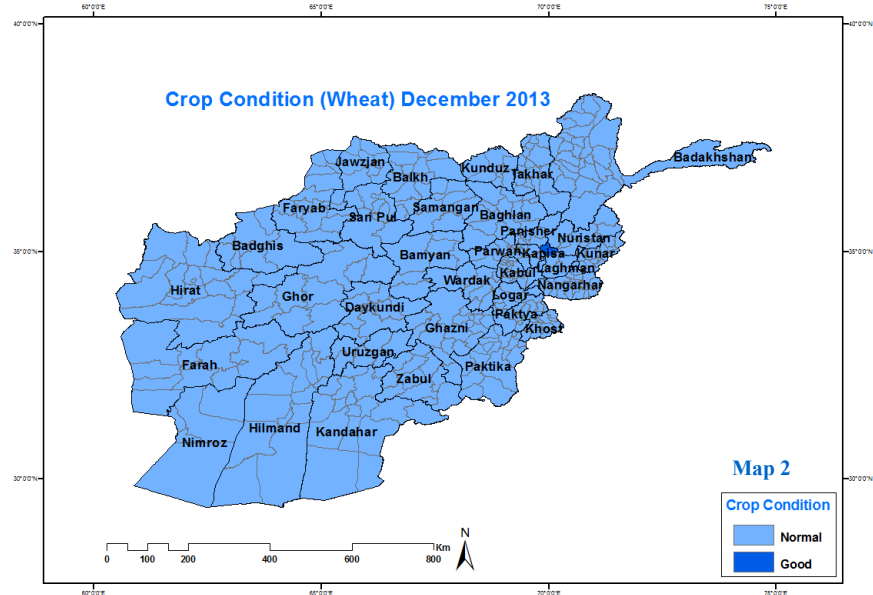
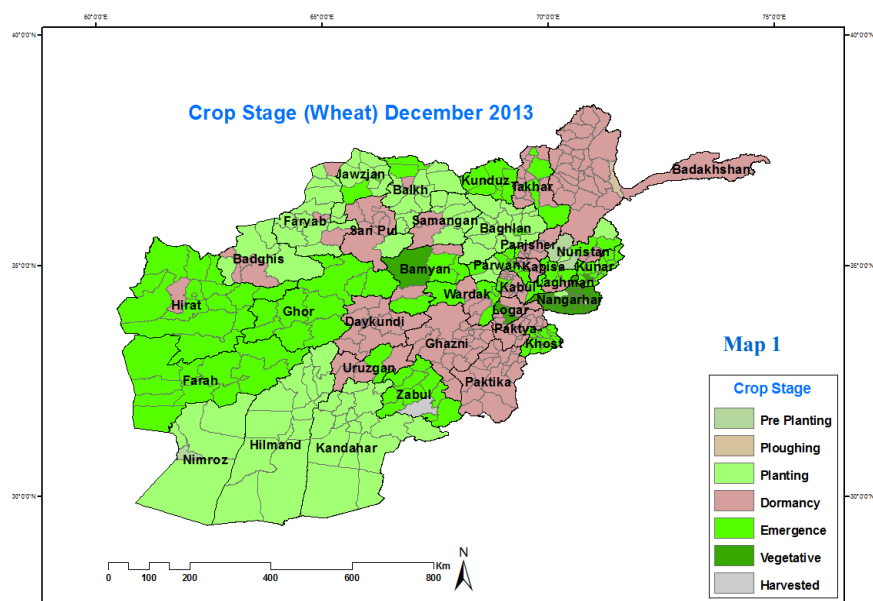
Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
East	Kunar	Asmar	Asmar	Emergence	Normal	Not Existed
		Asad Abad	Asad Abad	Emergence	Normal	Not Existed
		Chawkay	Chawkay	Vegetative	Normal	Not Existed
	Laghman	Mihtarlam	Mihtarlam	Emergence	Normal	Not Existed
		Qarghay	Qarghay	Emergence	Normal	Not Existed
		Alengar	Alengar	Emergence	Normal	Not Existed
	Noristan	Paroon	Paroon	Pre-Planting	Normal	Not Existed
		Do Ab	Do Ab	Pre-Planting	Normal	Not Existed
		Norgaram	Norgaram	Emergence	Normal	Not Existed
		Waigal	Waigal	Emergence	Normal	Not Existed
		Wama	Wama	Pre-Planting	Normal	Not Existed
North East	Takhar	Taluqan	Taluqan	Dormancy		
		Rostaq	Rostaq			
		Aqmasjad	Aqmasjad			
	Kunduz	Imam Sahib	Imam Sahib	Planting	Normal	Not Existed
		Qaliazal	Aqtipa	Emergence	Normal	Not Existed
		Khan Abad	Khan Abad	Emergence	Normal	Not Existed
		Kunduz	Kunduz	Emergence	Normal	Not Existed
		Archi	Archi	Emergence	Normal	Not Existed
		Chardara	Chardara	Emergence	Normal	Not Existed
		Ali Abad	Ali Abad	Planting	Normal	Not Existed
	Baghlan	Pulikhomri	Pozaishan	Planting	Normal	Not Existed
		Doshy	Doshy	Planting	Normal	Not Existed
	Badakhshan	Argo	Argo	Dormancy		
		Baharak	Baharak			
		Ashkashm	Ashkashm	Ploughing	Normal	Not Existed
		Khash	Khash	Dormancy		
		Faiz Abad	Faiz Abad			
South East	Khost	Khost	Khost	Emergence	Normal	Not Existed
		Khost	Shimal	Emergence	Normal	Not Existed
		Ali Sher	Ali Sher	Emergence	Normal	Not Existed
	Paktia	Zormat	Rohani Baba	Dormancy		
		Gardiz	Tera			
	Paktika	Urgon	Urgon			
		Sharana	Sharana			
		Khair kot	Khair Kot			

Data Source: Agromet Network

## Crop Stage, Crop Condition and Adverse Factor

Zone	Province	District	Station	Wheat		
				Crop Stage	Crop Condition	Adverse Factor
South	Nimroz	Zaranj	Zaranj	Planting	Normal	Not Existed
	Kandahar	Kandahar	Kandahar	Planting	Normal	Not Existed
		Kohkaran	Kohkaran	Planting	Normal	Not Existed
	Zabul	Qalat	Qalat	Emergence	Normal	Poor Rainfall
	Urozgan	Tirin Kot	Tirin Kot	Emergence	Normal	Poor Rainfall
	Hilmand	Nad Ali	Nad Ali	Planting	Normal	Not Existed
		Greshk	Greshk	Planting	Normal	Not Existed
		Nawa	Nawa	Planting	Normal	Not Existed
		Lashkargah	Bolan	Planting	Normal	Not Existed
North	Balkh	Takhta pol	Dihdadi	Planting	Normal	Not Existed
		Mazar shareef	Mazare shareef	Dormancy		
		Nahrishahi	Nahrishahi	Planting	Normal	Not Existed
		Dawlat Abad	Dawlat Abad	Emergence	Normal	Not Existed
	Jawzjan	Sheberghan	Sheberghan	Emergence	Normal	Not Existed
		Darzab	Darzab	Dormancy		
		Aqcha	Aqcha	Emergence	Normal	Not Existed
	Saripul	Saripul	Saripul	Emergence	Normal	Shortage of Input
		Sancharak	Sancharak	Dormancy		
		Sozmaqala	Sozmaqala			
	Faryab	Maimana	Maimana	Planting	Normal	Not Existed
		Andkhoy	Andkhoy	Planting	Normal	Not Existed
		Garzeewan	Garzeewan	Dormancy		
	Samangan	Aibak	Aibak	Planting	Normal	Not Existed
		Dara Souf	Dara Souf	Planting	Normal	Not Existed
		Sar bagh	Sarbagh	Dormancy		
	Badghis	Maqur	Maqur			
		Qalainow	Qalainow			
North West	Ghor	Chaghcharan	Chaghcharan	Emergence	Normal	Not Existed
		Dawlat yar	Dawlat yar	Emergence	Normal	Not Existed
	Hirat	Shindand	Shindand	Emergence	Normal	Not Existed
		Hirat	Hirat	Emergence	Normal	Not Existed
		Zindajan	Zindajan	Emergence	Normal	Not Existed
		Gwazara	Falahat	Emergence	Normal	Not Existed
		Hirat	Farm Urdokhan	Emergence	Normal	Not Existed
	Farah	Farah	Farah	Emergence	Normal	Not Existed

# Wheat Crop Stage, Condition and Adverse Factor Maps



Data Source: Agromet Network

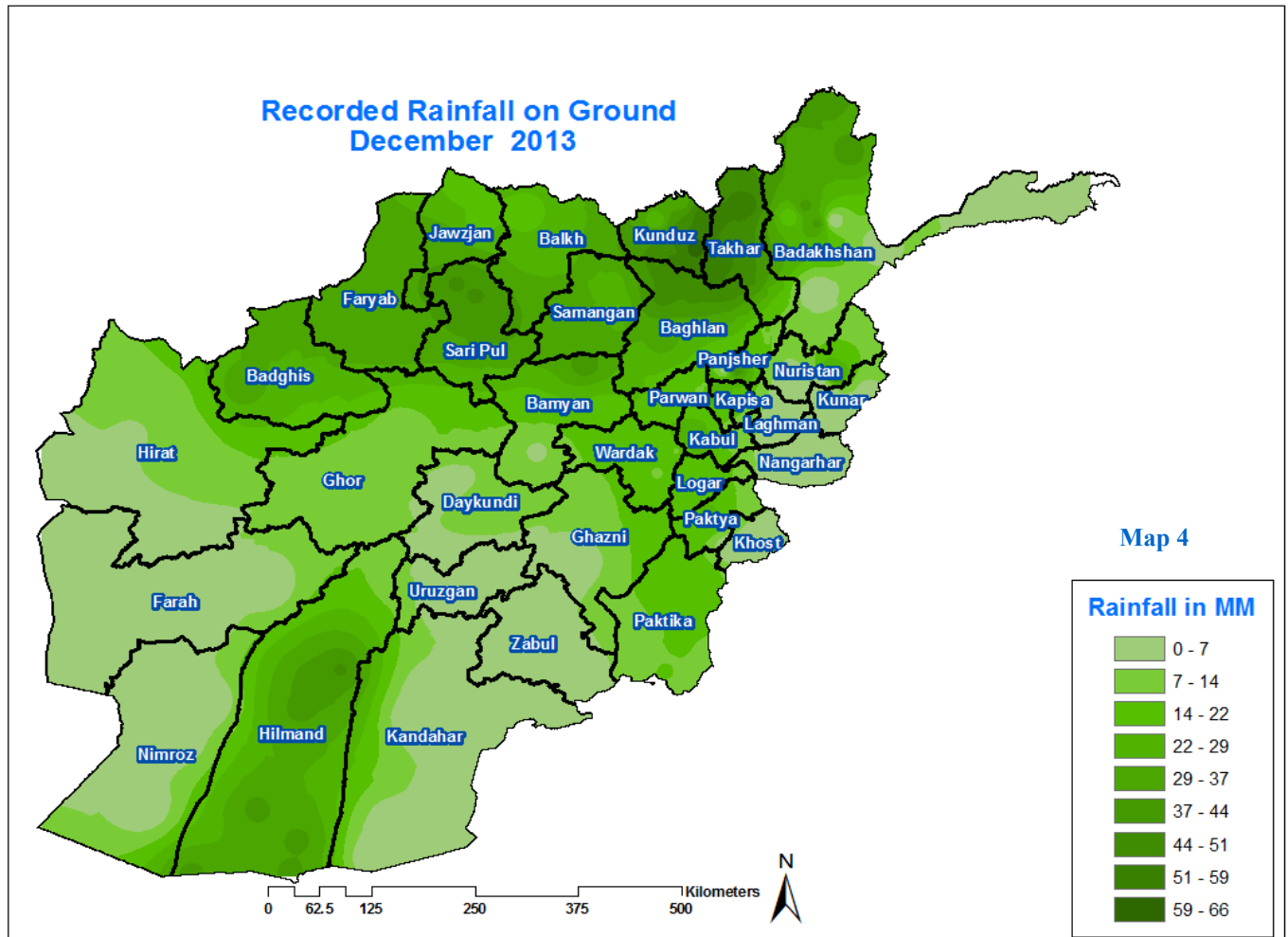
## Precipitation

Comparison of Monthly rainfall data for the month of December 2013, in contrast to the same month of December 2012, show significant decrease of rainfall in most of the areas aside from some areas of Northern region during the month of December 2013, compare to the same month of last year.

Comparison of Monthly rainfall data for the month of December 2013 in contrast to the same month of Long Term Average, show decrease of rainfall

aside from North and North eastern regions during the month of December 2013 compare to the same month of Long Term Average.

Fairly widespread rainfall occurred during the month of the December 2013, as Map (4) Shows the distribution of rainfall during the month of December 2013, in entire country the highest rainfall has occurred in Khan Abad district of Kunduz province which was 66.7 mm.



## Precipitation

Normally during the month of December 2013, the expectation for more rainfall is high, but unfortunately we did not experienced widespread rainfall in the entire country during this month. As table 1 shows, during the month of December 2013 in central part to the country Bamyān has received 19.5 mm, Logar 15 mm, Paghman 27 mm, Sarobi 7mm, Nili 14.5mm, Dashtak 3.3mm and Mahmood Rāqī 29.2mm of rainfall .The highest rainfall has been recorded in Mahmood Rāqī center of Kapisa province which is 29.5 mm. In Eastern region Asmar has received 4 mm, Ghazi Abad 5mm, Mehtarlam 1mm, and Paroon 25 mm, and the highest rainfall in this regain has been recorded in Paroon center of Nuristan province which is 25 mm. In Northern region Aibak has received 26.5 mm, Dara-e-Soof 35.7 mm, Jawzan 34.8 mm, Mazar 29 mm, and Sari Pul 46 mm, the highest rainfall in this regain has been recorded in Sari Pul province which is 46 mm. In North Eastern region Baghlan has received 45.6 mm, Faizabad 40 mm, Taluqan 49.5 mm, and Kunduz 55 mm, the highest rainfall in the north eastern region has been recorded in Kunduz province which is 55 mm.

In Southern region Kandahar has received 0 mm, Lashkargah 38 mm, Uruzgan 3mm, Zabul 0 mm, and Zaranj 0 mm, the highest rainfall in this region has been recorded in Lashkargah district of Hilmand province which is 38 mm. In South Eastern region Tera has received 22 mm, Khost 0 mm, and Urgon 22 mm. In western region Farah has received 0 mm, Hirat 2 mm, Qala-e-Now 34 mm and Shindand 6.5 mm the highest rainfall in the respected region have been recorded in Qala-e-Now Center of Badghis province which is 34 mm.

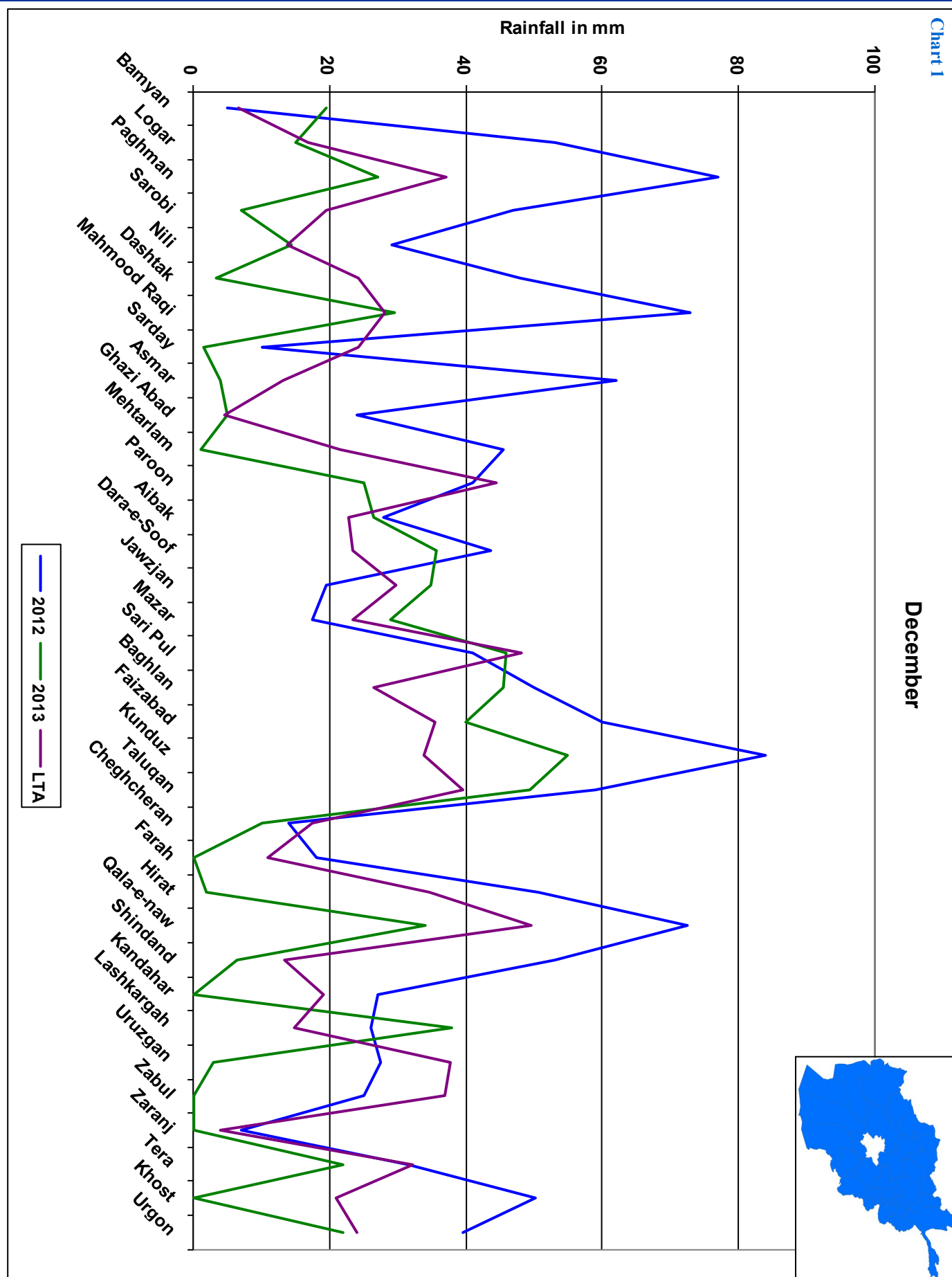
In conclusion we can say that, rainfall has two extremes the high extreme has occurred in Kunduz province which is 55 mm in the month of December 2013, and the lowest extreme has occurred in Mehtarlam center of Laghman province which is 1 mm in the month of December 2013. For more information regarding the rainfall for the month of December 2013 please, refer to the below table.

Station Name	December			Deviation	Comparison	Prediction Table 3
	2012	2013	LTA			
Bamyān	4.9	19.5	6.7	12.8	Above Normal	No Dryness
Nili	29.2	14.5	13.8	0.7	Above Normal	No Dryness
Dashtak	48	3.3	24.2	-20.9	Bellow Normal	Dryness
Logar	53	15	16.8	-1.8	Bellow Normal	Dryness
Paghman	77	27	37.1	-10.1	Bellow Normal	Dryness
Sarobi	47	7	19.6	-12.6	Bellow Normal	Dryness
Mahmood Rāqī	73	29.5	28.2	1.3	Above Normal	No Dryness
Rainfall decrease in 2013 with respect to LTA						
Asmar	62	4	13.1	-9.1	Bellow Normal	Dryness
Ghazi Abad	24	5	4.6	0.4	Above Normal	No Dryness
Mehterlam	45.6	1	21.5	-20.5	Bellow Normal	Dryness
Paroon	41	25	44.5	-19.5	Bellow Normal	Dryness
Baghlan	50	45.6	26.5	19.1	Above Normal	No Dryness
Faizabad	60	40	35.5	4.5	Above Normal	No Dryness
Kunduz	84	55	33.8	21.5	Bellow Normal	Dryness
Stations Like Ghazi Abad, Baghlan, and Faiz Abad are non dry in comparison with LTA.						
Taluqan	59	49.5	39.5	10	Above Normal	No Dryness
Aibak	28	26.5	22.8	3.7	Above Normal	No Dryness
Dara-e-soof	43.6	35.7	23.5	12.2	Above Normal	No Dryness
Jawzjan	19.6	34.8	29.7	5.1	Above Normal	No Dryness
Mazar	17.5	29	23.5	5.5	Above Normal	No Dryness
Sari Pul	41	46	48.2	-2.2	Bellow Normal	No Dryness
Kandahar	27	0	19.2	-19.2	Bellow Normal	Dryness
Lashkargah	26	38	14.8	23.2	Above Normal	No Dryness
Uruzgan	27.5	3	37.8	-34.8	Bellow Normal	Dryness
Stations like Sari Pul, Kahndahar and uruzgan are dry with respect to LTA						
Zaranj	7	0	4	-4	Bellow Normal	Dryness
Tera	31.5	22	32.2	-10.2	Bellow Normal	Dryness
Zabul	25	0	36.9	-36.9	Bellow Normal	Dryness
Khost	50.2	0	21	-21	Bellow Normal	Dryness
Sarady	10	1.5	24.2	-22.7	Bellow Normal	Dryness
Urgon	39.5	22	24.1	-2.1	Bellow Normal	Dryness
Cheghcheran	14	10	17.4	-7.4	Bellow Normal	Dryness
Farah	18	0	10.9	-10.9	Bellow Normal	Dryness
Hirat	50.6	2	34.6	-32.6	Bellow Normal	Dryness
Qala-e-naw	72.5	34	49.7	-15.7	Bellow Normal	Dryness
Shindand	53	6.5	13.3	-6.8	Bellow Normal	Dryness
Rainfall decrease in 2013 with respect to LTA						

Data Source: Agromet Network



## Rainfall Graphs for the Month of December 2013



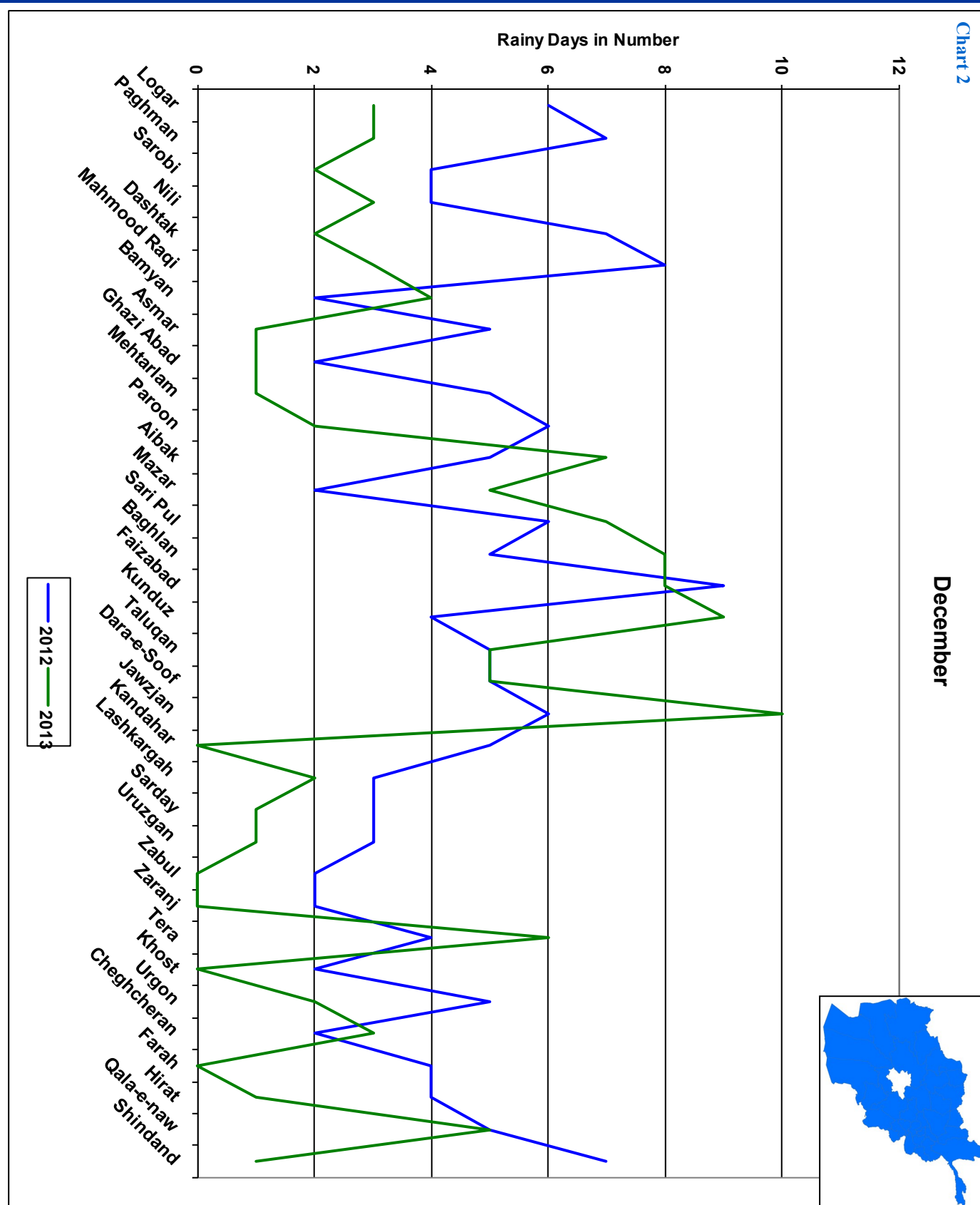
## Rainy Days

Based on the bellow table, the areas of Bamyan, Aibak, Mazar, Sari Pul, Baghlan, Kunuduz, Jawzjan, Tera and Cheghcheran are having the highest number of rainy days during the month of December 2013, compared to the same month in 2012. The areas such as, Logar, Paghman, Sarubi, Nili, Dashtak, Mahmood Raqi, Asmar, Ghazi Abad, Mehtarlam, Paroon, Faizabad, Kandahar,

Lashkarghah, Sarday, Uruzgan, Zabul, Zaranj, Khost, Urgon, Farah, Hirat and Shindand are the areas with the least number of rainy days in December 2013, in comparison to the same month of 2012. The areas such as Taluqan, Dara-e- Soof and Qala-e- Naw are the areas that had equal rainy days in comparison to the same month of last year.

No	Station Name	December		Table 2 Comparison Prediction with respect to (2012)
		Rainy Days		
		2012	2013	
1	Dashtak	7	2	Dryness
2	Logar	6	3	Dryness
3	Paghman	7	3	Dryness
4	Sarobi	4	2	Dryness
5	Bamyan	2	4	No Dryness
6	Mahmood Raqi	8	3	Dryness
7	Nili	4	3	Dryness
8	Ghaziabad	2	1	Dryness
9	Asmar	5	1	Dryness
10	Mehterlam	5	1	Dryness
11	Paroon	6	2	Dryness
12	Aibak	5	7	No Dryness
13	Mazar	2	5	No Dryness
14	Saripul	6	7	No Dryness
15	Baghlan	5	8	No Dryness
16	Faizabad	9	8	Dryness
17	Kunduz	4	9	No Dryness
18	Taluqan	5	5	No Change
19	Dara-e-soof	5	5	No Change
20	Jawzjan	6	10	No Dryness
21	Zabul	2	0	Dryness
22	Kandahar	5	0	Dryness
23	Lashkargah	3	2	Dryness
24	Sarday	3	1	Dryness
25	Uruzgan	3	1	Dryness
26	Zaranj	2	0	Dryness
27	Tera	4	6	No Dryness
28	Khost	2	0	Dryness
29	Urgon	5	2	Dryness
30	Cheghcheran	2	3	No Dryness
31	Farah	4	0	Dryness
32	Hirat	4	1	Dryness
33	Qala-e-naw	5	5	No Change
34	Shindand	7	1	Dryness

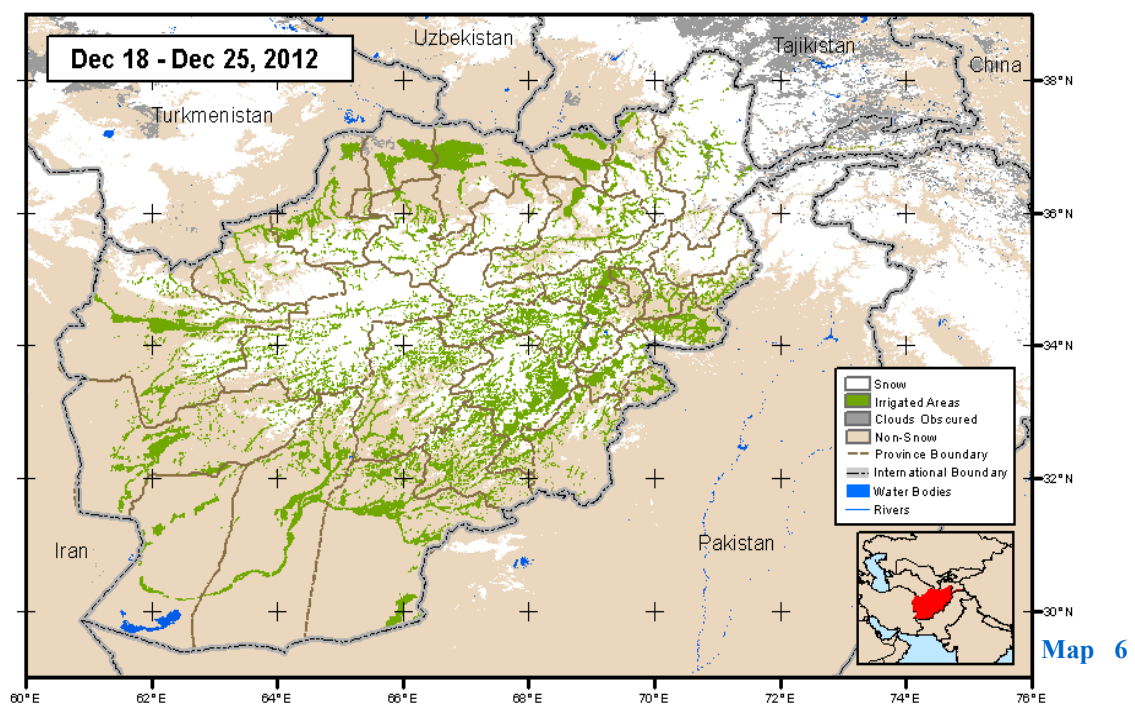
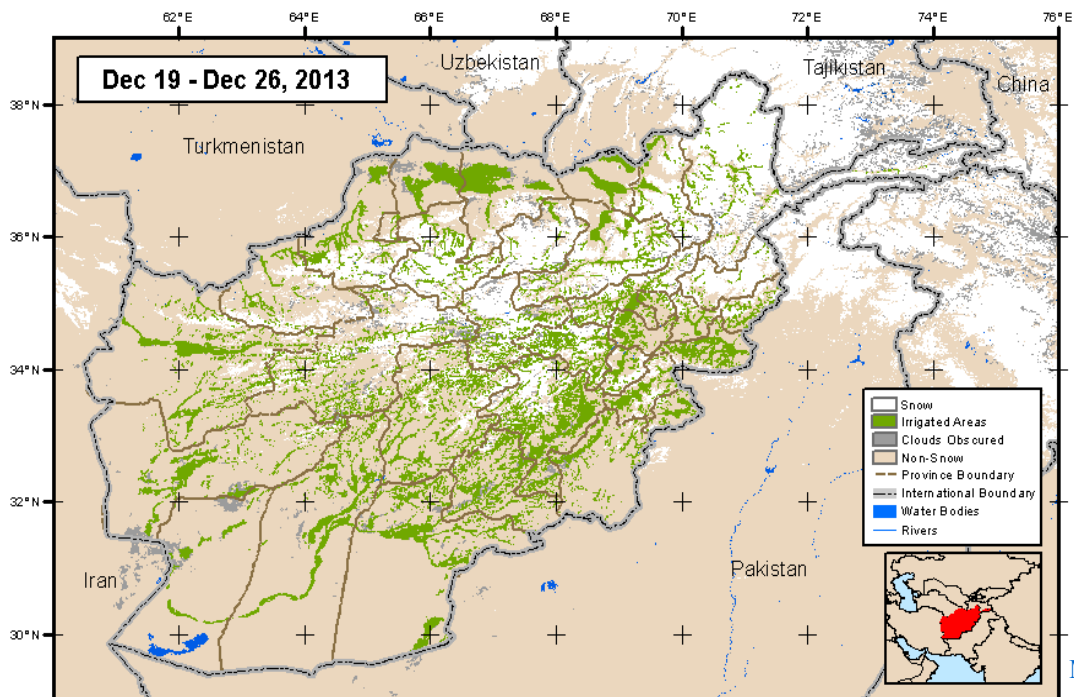
## Rainy Days for the Month of December 2013



Comparison of rainy days for the month of December 2013, with the same month of last year (Chart 2) shows variable situation, in most parts of the country

it shows decrease of rainy days, while in some parts of the country it shows increase of rainy days.

## MODIS 8-day Snow Cover Extent Current Period vs. Previous Year



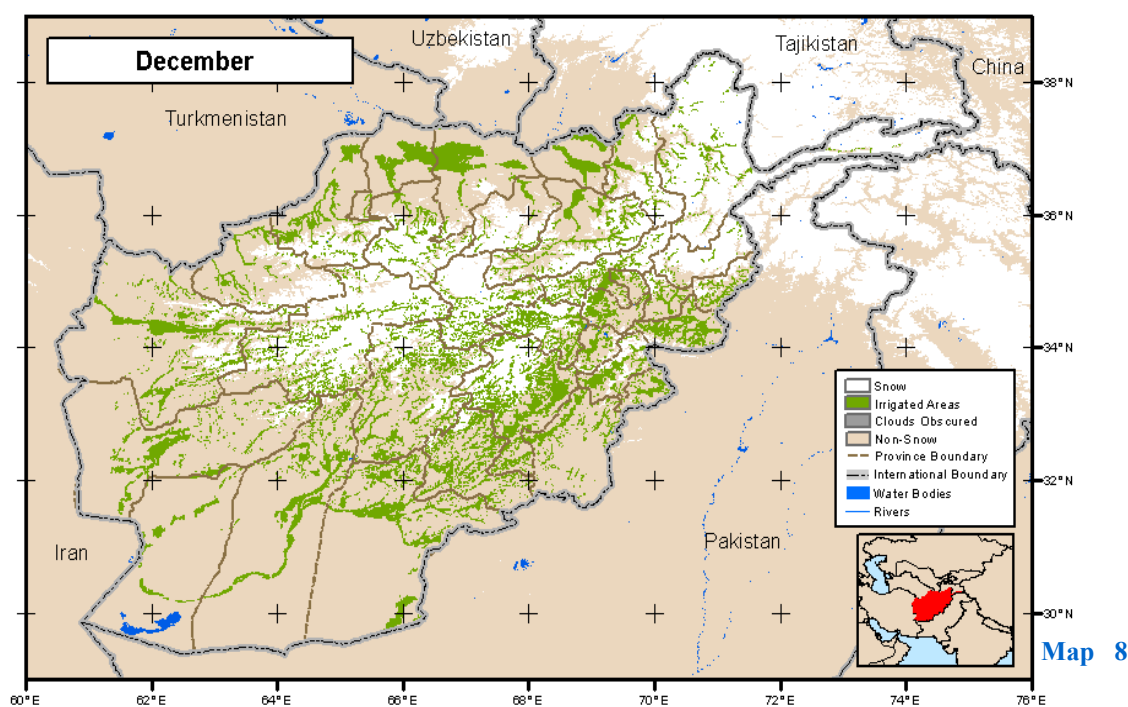
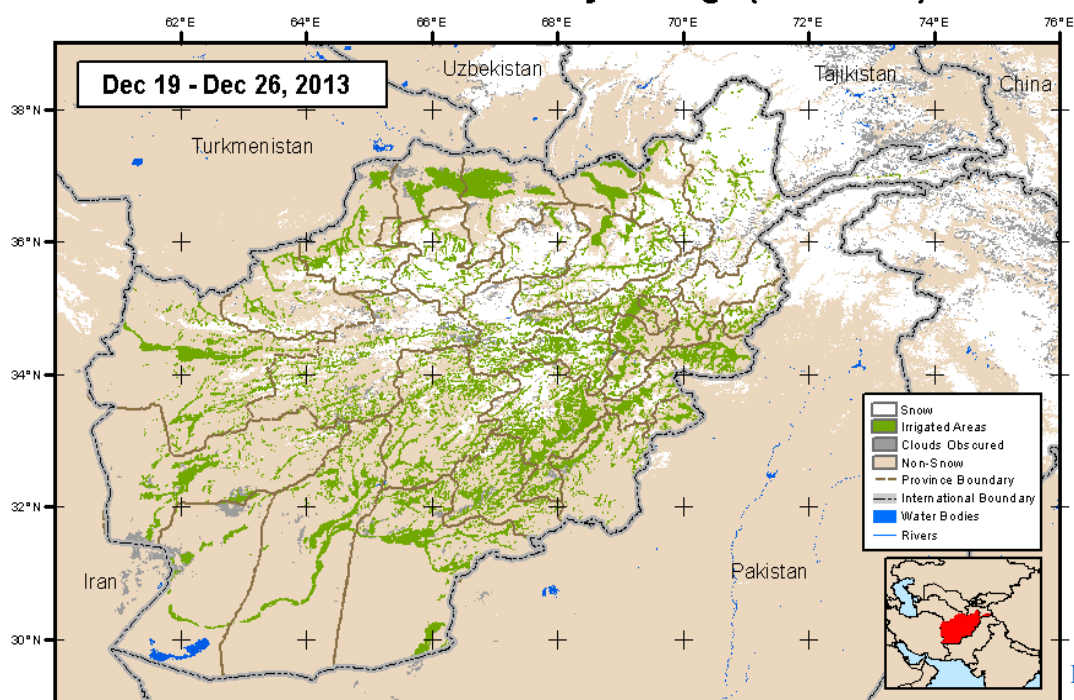
Map created by USGS/EROS



Comparison of snow extent for the period of (December 19 – December 26) 2013 with the same period in 2012 (Map 5 - 6) shows significant decrease in snow extent during the above mentioned period of time over the same period of time in 2012.



# MODIS 8-day Snow Cover Extent Current Period vs. Monthly Average (2001-2012)

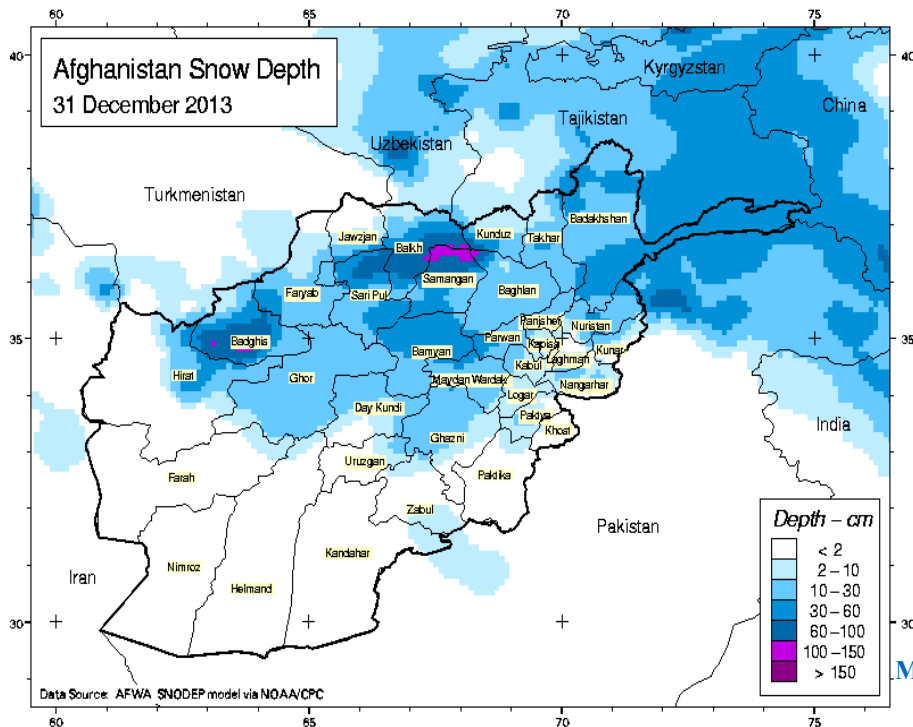


Map created by USGS/EROS



Comparison of snow extent for the month of December 2013, with the same month of long term average (Map 7-8) shows small decrease in snow extent during the month of December 2013, over the same month of long term average.

## Afghanistan Snow Depth for month of December 2013



Map 9

In most parts of the country such as North, North East, North West, Central and South East regions snow is visible. Map (15) shows snow depth for the end of December 2013.

As map (9) shows the snow depth has been recorded from 10 to 30 cm in most parts, from 60 to 100 in some parts and from 100 to 150 in less parts of the country.



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